

S235965



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D6101-001
Job Sheet 203486



Part No: D6101-001

Job Qty: 40 pcs

Part Name: Saddle Billet



Part Weight: 0 lbs

Job Created: 11/20/19

Due Date: 12/16/19

Type: Stock

Note: DWG REV B

Ship Via:

Status: New

Priority: Medium

Job Tracking No:

Created By: Chantal Lavoie

Description:

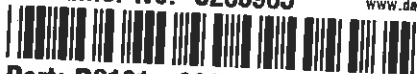
Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard Setup Hrs	Run Hrs	Workcenter/Supplier	Lead Time	Sign-off
100	Purchasing	DAS 40 13 pcs 9-89		12/16/19	0.00	0.00	Purchasing - 1	DAS	
							Purchasing - 2	81	NOV 20 2019
							Purchasing - 3	9-89	
110	Packaging 2-1 - Receive - B4B	40 pcs		12/16/19	0.00	0.00	Packaging 2 - 1 - B4B		
							Packaging 2 - 2 - B4B		
							Packaging 2 - 3 - B4B		
							Packaging 2 - 5 - B4B		
							Packaging 2 - 4 - B4B		
							Packaging 2 - 6 - B4B		
							Packaging 2 - 7 - B4B		
							Packaging 2 - 8 - B4B		
							Packaging 2 - 9 - B4B		
							Packaging 2 - 10 - B4B		
							Packaging 2 - 11 - B4B	DAS 81	
							Packaging 2 - 12 - B4B	9-89	NOV 23 2019
							Packaging 2 - 13 - B4B		
							Packaging 2 - 14 - B4B		
							Packaging 2 - 15 - B4B		
							Packaging 2 - 16 - B4B		
							Packaging 2 - 17 - B4B		
							Packaging 2 - 18 - B4B		
							Packaging 2 - 19 - B4B		
							Packaging 2 - 20 -		



Container No: S235965



Part: D6101-001

Job No: 203486

Serial No/Batch: S235965

Revision:

Inspector:

Exp Date:

Instructions: Various STC's

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 11/29/19

Plex 11/20/19 12:58 PM Dart.Lavoie.Chantal

				B4B	
				Packaging 2 - 21 - B4B	
				Packaging 2 - 22 - B4B	
				Packaging 2 - 23 - B4B	
				Packaging 2 - 24 - B4B	
				Packaging 2 - 25 - B4B	
				Packaging 2 - 26 - B4B	
				Packaging 2 - 27 - B4B	
				Packaging 2 - 28 - B4B	
				Packaging 2 - 29 - B4B	
				Packaging 2 - 30 - B4B	
				Packaging 2 - 31 - B4B	
				Packaging 2 - 32 - B4B	
				Packaging 2 - 33 - B4B	
				Packaging 2 - 34 - B4B	
				Packaging 2 - 35 - B4B	
				Packaging 2 - 36 - B4B	
120 QC 18	40 pcs	12/16/19	0.00 0.00	QC 18 - 12	
				QC 18 - 14	
				QC 18 - 22 DAS	
				QC 18 - 25 81	
				QC 18 - 48 9-89	NOV 29 2019
				QC 18 - 58	
				QC 18 - 61	
				QC 18 - 9	
				QC 18 - 81	
				Packaging 3 - 1 - B4B	
130 Packaging 3-1 - Stock - B4B	40 pcs	12/16/19	0.00 0.00	Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	

				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
140 QC 21 - SA	40 pcs	12/16/19	0.00 0.00	QC 21 - SA - 21	DAS
				QC 21 - SA - 70	21
				QC 21 - SA - 53	9-85

NOV 29 2019

Part Op 100 - Issue P/O: _____ a)Description: Alluminum billet b) 6.00" x 6.250" x 2.00" thick c) Tolerance on length Descriptions: are +0.030"/-0.000"/E+/-0.008" d) Grain direction along 6.00" length e) Material: 7075-T7351 (QQ-A-250/12)

110 - (Receive & Inspect for Damage & Mat'l Certs), Ensure material certification is attached

120 - Ensure Material certification comply to Dwg D

130 - (Identify as per dwg & Stock Location: _____), LOCATION: MAT042

140 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6101-001P	7075-T7351 2X6X6.25	40 pcs (1 ea)	100-Purchasing	5225959

Job Allocations

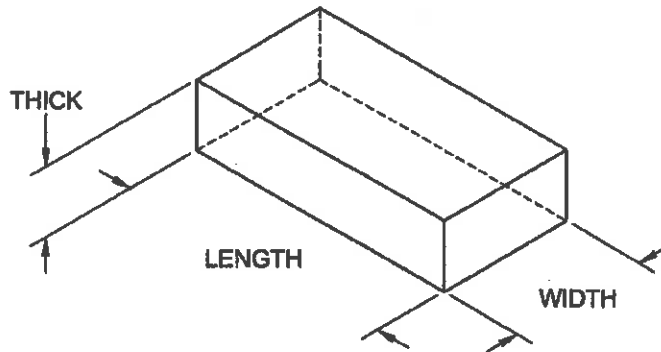
Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	D6101-001P	40	0	0

Part Specifications	
Specifications could not be found.	

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LINEL D6101-001 PCB

SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

B ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

RELEASED
09/07/15/W

B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D6101	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SADDLE BILLET, 7075	NTS
DATE	09.04.23	COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **POHB045164**



Supplier: MEC002-VU
Metaux Castle
P.O. Box 4090 Stn A
Toronto
ON
M5W OE9 Canada

PO No: POHB045164

PO Date: 11/20/19

Due Date: 12/16/19

**Purchase Order
Revision:**

Revision Date:

Ship-To Contact: Lavoie, Chantal
Phone: 613-623-5200 Ext: 242
Fax: 613-632-1053
clavoie@dartaero.com

NOV 20 2019

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pynt Terms: Net 60

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Drawing	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1		M7075T6S.160			7075-T6 Sheet .160 : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive sf	Firmed	-	12/16/19	48 sf	0 sf	48 sf	\$17.00/sf	\$816.00
2	203486	D6101-001P	D6101	72746	7075-T7351 2X6X6.25 AS PER DWG D6101 REV. B SIZE: 6.00" X 6.250" X 2.00" THICK GRAIN DIRECTION ALONG 6.00" LENGHT MATERIAL: 7075-T7351 QQ-A-250/12 TOLERANCE AS PER QUOTE +.030"/-.000"	Firmed	-	12/16/19	40 pcs	0 pcs	40 pcs	\$29.57/pcs	\$1,182.80

40
pcs
606

NOV 29 2019



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB045164



Items

Line Item	Job	Part	Drawing	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
3	203487	D6101-007P	D6102	72743	7075-T7351 8.25X7.75X2.5 : Various STC's AS PER DWG D6101 REV. B MATERIAL: 7075-T7351 (QQ-A-250/12) SIZE: 7.750" X 8.250" X 2.50" THICK GRAIN DIRECTION ALONG: 7.750" LENGTH TOLERANCE AS PER QUOTE +0.030/-0.000"	Firmed	-	12/16/19	20 pcs	0 pcs	20 pcs	\$61.72/pcs	\$1,234.40
4	203488	D6104-007P	D6104		17-4 SS Roundbar 4.50"Od : AS PER DWG D6104 REV. B MATERIAL: 17-4 PH AS PER 17-4 (AMS 5643 OR AIS 630) MIN UTS = 170 KSI (38 HRC) TOLERANCE ON ALL DIMS IS +0.030/-0.0000	Firmed	-	12/16/19	10 pcs	0 pcs	10 pcs	\$68.53/pcs	\$685.30
Grand Total:													\$3,918.50

HRC

38

35 ~ 38.75

42

40



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER
POHB045164



Order Notes

Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable). No Raw Metals from China or Soviet Bloc Countries. (DFARS)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program.

A049 supplier awareness.

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 11/20/19 1:04 PM Dart.Lavoie.Chantal



Castle Metals®

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

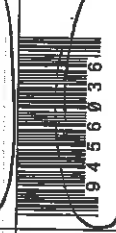
Page 1 of 2

Shipment No:4050173

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA
Date Shipped	Inco Terms	Freight Terms		BOL No
27-NOV-19	FCA HAWKESBURY ON CAN	Prepay & Add		4050173-6
Carrier LOCAL FLEET				

Shipment Details

Final Destination Branch - TOR

Order No 5661863	Line No 1	Item No 72746	Description 2.0000 PL. 7075. T7351 ALUMINUM GRAIN TO RUN ALON 6.0000 IN. 6.2500 6.0000 SPECIFICATIONS: AMS-QQ-A-250/12		
Purchase Order No POH045164	Part Number YOUR ITEM NUMBER: D6101-001	Ordered Qty 40.00 PCS	Invoice Qty 40.00 PCS		
Details ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS					
Delivery No. 123006127	Mill KAISER ALUMINUM	Heat Number  725088911	Mech Id	PCS 24	Width (IN) 6.0000
		 94560361		16	6.0000
					6.2500
					185.7984
					123.8656



Castle Metals®

A. M. Castle & Co.

PACKING SLIP/
CERTIFICATE OF CONFORMANCE

Page 2 of 2

any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized by U.S. law and regulations.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:



Date:

Name:

NOV 27 2019

SHIP TO: A M CASTLE & CO 14001 ORANGE AVE P.O. BOX 1402 PARAMOUNT, CA 90723
SOLD TO: AM CASTLE & CO- SOLD TO 1420 KENSINGTON RD SUITE 220 OAK BROOK, IL 60523

KAISER ALUMINUM

Trentwood Works

PO Box 15108, Spokane Valley WA 99215-5108

15000 E Euclid, Spokane Valley WA 99216

Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number

4571763

CUSTOMER PO NUMBER: 484029-1	WORK PACKAGE:	CUSTOMER PART NUMBER: 752237	SHIP RUN/LOAD: 104667/10	GOV'T CONTRACT NUMBER:
KAISER ORDER NO: 1273332-1	SHIP DATE: 6-JUL-2019	ALLOY: 7075	CLAD: BARE	TEMPER: T7351
PRODUCT DESCRIPTION: KaiserSelect Plate				
WEIGHT SHIPPED: 7198 LB (3264.99 KG)	QUANTITY: 5 PCS EST.	TRUCK B/L #: 2081814	GUAGE: 2.0000 IN (50.8000 MM)	DIAMETER/WIDTH: 48.500 IN (1231.8 MM)
LENGTH: 144.500 IN (3670.3 MM)				

MHU 2351594: LOT 725088B9: 2 pieces;

MHU 2354996: LOT 314871B5: 1 pieces;

MHU 2355104: LOT 725366B9: 2 pieces;

Certified Specifications

AMS-4078/RevK

ASTM B 209/Rev14

BSS 7055/RevB

DPS 4.713/RevAK

GSS16100/RevG/Amd1

PS 21211/RevP

AMS-QQ-A-250/12/RevA

ASTM B 594/Rev13

CMMP 025/RevV

EAC MS1011/RevE

MMS 159/RevT

AMS-STD-2154/RevC

BAC 5439/RevJ

CSTI 006/RevE

GAMPS 9101/RevB/AmdSCN1

PPS 20.04/Rev7

Test Code: 4297

Lot: 314871B5

Cast 860

Drop 25

Test Results

Ingot 3

Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 3 (Min:Max)	71.8 : 72.2 (495 : 498)	60.6 : 61.3 (418 : 423)	12.7 : 12.9

(ASTM E1004)

(EN 2004-1)

Conductivity %IACS :	40.5 Min	41.0 Max
(MS/M) :	23.5 Min	23.8 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TJ	V	ZR	OTHER
Actual(wt%)	0.07	0.14	1.4	0.02	2.4	0.20	5.8	0.02	0.01	0.01	TOT 0.03





CERTIFIED TEST REPORT

Trentwood Works
PO Box 15108, Spokane Valley WA 99215-5108
15000 E Euclid, Spokane Valley WA 99216
Phone: (800) 367-2586

Serial Number
4571763

Lot: 725088B9 Cast 863 Drop 01 Ingot 1 Parent Lot: 319644B1 Melted in USA

(ASTM E8/B557)
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	73.1 : 74.1 (504 : 511)	62.5 : 63.1 (431 : 435)	12.5 : 12.8

(ASTM E1004)
(EN 2004-1)

Conductivity %IACS :	40.2 Min	40.2 Max
(MS/M) :	23.3 Min	23.3 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.05	0.12	1.6	0.02	2.6	0.20	5.8	0.02	0.01	0.01	TOT 0.03
Lot: 725366B9	Cast 860	Drop 25	Ingot 3	Parent Lot: 314871B5	Melted in USA						

(ASTM E8/B557)
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	72.3 : 72.6 (498 : 501)	61.3 : 61.5 (423 : 424)	12.7 : 12.9

(ASTM E1004)
(EN 2004-1)

Conductivity %IACS :	40.6 Min	41.0 Max
(MS/M) :	23.5 Min	23.8 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.07	0.14	1.4	0.02	2.4	0.20	5.8	0.02	0.01	0.01	TOT 0.03

ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

ORDER COMMENTS
AMC CA-15413A R 10
7055



CERTIFIED TEST REPORT

Trentwood Works

PO Box 15108, Spokane Valley WA 99215-5108

15000 E Euclid, Spokane Valley WA 99216

Phone: (800) 367-2586

Serial Number

4571763

TEST NOTES

Metal represented by this test report was 100% Type I (immersion) ultrasonically tested from one side with 3mm dead zones top and bottom and meets the Class A and Class B requirements of all specifications referenced on this test report. No surface marking of sonic indications is performed.

CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order:

- * has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.
- * All test equipment and measuring devices are calibrated and certified in accordance applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.
- * was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.
- * has been thermally processed in compliance with AMS 2772, where applicable.
- * is mercury free, within the limits of detection of ASTM E1215 (<1ppm).
- * is in compliance with RoHS 2, European Union Directive 2011/65/EU.
- * is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.
- * is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act.
- * is free of weld repair.
- * meets the reporting requirements of EN10204, Type 3.1.

Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

Michael Peske, PT Lab Process Engineer



Constellium Rolled Products Ravenswood, LLC
PO BOX 68
RAVENSWOOD, WV 26164

KEEP MATERIAL DRY
PACKING LIST

SHIP TO				DELIVERY NUMBER		RECEIVING HOURS MONDAY THRU FRIDAY 9 AM TO 2:30 PM, CALL AT MINIMUM 24 HR PRIOR TO ARRIVAL FOR APPT. 316-522-5900.		
A M CASTLE CO 3050 SO HYDRAULIC WICHITA, KS				110777239				
				SHIPMENT INFO.				
				07/09/2019 07:50:00				
CUSTOMER PO NO.				CUSTOMER PART NO.		ORIGINAL PROMISE		
503653				752237		07/19/2019		
ITEM DESCRIPTION				ORDER NO.		MAIN CUSTOMER SPECIFICATION		
SPEC PLATE, SAWED MILL FINISH				274033		AMS 4078K		
ALLOY	CLAD	TEMPER	GAUGE	WIDTH	LENGTH	GOVERNMENT CONTRACT NO.		
7075		T7351	2.00000 IN 50.80 MM	48.50000 IN 1.232 MM	144.50000 IN 3.670 MM			
TICKET NO.	LOC	LOT NO.	PARENT LOT	PIECES	GROSS WT.	TARE WT.	NET WT.	SERIAL NUMBERS
1002095538	A24M	9456036		000002	2,940.000 LB	90.000 LB	2,850.000 LB	
1002095539	A25W	9456036		000001	1,515.000 LB	90.000 LB	1,425.000 LB	
1002095576	A24M	9456037		000002	2,930.000 LB	90.000 LB	2,840.000 LB	
1002095577	A24M	9456037		000001	1,510.000 LB	90.000 LB	1,420.000 LB	
SOURCE INSPECTION N AMC CA-15413A R 11								
COMMODITIES, TECHNOLOGY, OR SOFTWARE EXPORTED FROM U.S. IN ACCORDANCE TO EXPORT ADMIN REGULATIONS DIVERSION CONTRARY TO U.S. LAW PROHIBITED								
								
TOTAL SKIDS	TOTAL PIECES	TOTAL GROSS	TOTAL TARE	TOTAL NET WT.	PLANNED DATE	B/L NO.		
00004	000006	6895.000 LB	360.000 LB	8,535 LB	07/16/2019	120776		
ROUTE: 09US03						DEL.CARRIER:BESL		



Constellium Rolled Products
Ravenswood, LLC

S
H
I
P
T
O

A M CASTLE CO
3050 SO HYDRAULIC
WICHITA KS
67216
US

S
O
L
D
T
O

A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE		110777239		4776		INCLUSION		Serial:20190708-0110777239		Pg 1of3	
CUSTOMER PURCHASE ORDER NO. & ITEM 503663						Constellium ORDER NO. 274033					
ALLOY 7075	CLAD	TEMPER T7351	GAUGE 2.00000 in 50.80 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm	CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Dave Dunbarger - Laboratory Manager					
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4078K											
PART NUMBER 752237			B/L NUMBER 120776		DATE SHIPPED 07/09/2019						
WT. SHIPPED 8535.000 LB			NO. OF PIECES 000006		GOVT. CONTRACT NO.						

ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS:

ASTM B594 REV 13 2013 100% SONIC W/ 0.12" DEADZONE Class A
AMS QQ-A-250/12A
AMS-STD-2154C 2017 TYPE1 CLASS A 100% SONIC MINUS DEADZONE
ASTM B209-14
BSS-7055B 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE
CMMP025 REV V
CST1006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE
DPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE
GAMPS 9101 REV B 2006 CLASS A 100% SONIC MINUS DEADZONE
MMS 159T
PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE

Load Details

Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1002095538	1,425.000	646.369	9456036	01		
1002095538	1,425.000	646.369	9456036	02		
1002095539	1,425.000	646.369	9456036	03		
1002095576	1,420.000	644.101	9456037	01		
1002095576	1,420.000	644.101	9456037	02		
1002095577	1,420.000	644.101	9456037	03		

Lot: 9456036 (See test results below)

Tensile - Room Temperature (US)

		Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
Direction	Tests	Min	Max	Min	Max	Min	Max	
LT	02	73.7	74.2	63.3	63.9	12.0	12.0	





Constellium Rolled Products
Ravenswood, LLC

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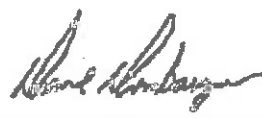
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A M CASTLE CO
3050 SO HYDRAULIC
WICHITA KS
67216
US

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A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE		110777239		4776		INCLUSION		Serial:20190708-0110777239		Pg 2of3	
CUSTOMER PURCHASE ORDER NO. & ITEM 503663						Constellium ORDER NO. 274033					
ALLOY 7075		CLAD		TEMPER T7351		GAUGE 2.00000 in 50.80 mm		WIDTH 48.50000 in 1,232 mm		LENGTH 144.50000 in 3,670 mm	
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4078K											
PART NUMBER 752237				B/L NUMBER 120776				DATE SHIPPED 07/09/2019			
WT. SHIPPED 8535.000 LB				NO. OF PIECES 000006				GOVT. CONTRACT NO.			
										CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Dave Dunbarger - Laboratory Manager	
Tensile - Room Temperature (Si)											
		Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report			
Direction	Tests	Min	Max	Min	Max	Min	Max				
LT	02	508	512	436	441	12.0	12.0				
Conductivity % IACS MIN 40.1 MAX 40.7 % MS/M MIN 23.3 MAX 23.6											
Chemistry (Actual)											
	SI	FE	CU	MN	MG	CR	ZN	TI	ZR		
Core	0.08	0.13	1.54	0.03	2.58	0.21	5.82	0.03	0.01		
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER											
All material contained in this lot was cast and manufactured in the USA											
Lot: 9456037 (See test results below)											
Tensile - Room Temperature (US)											
		Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report			
Direction	Tests	Min	Max	Min	Max	Min	Max				
LT	02	73.7	73.9	63.1	63.7	12.5	12.5				
											



Constellium Rolled Products
Ravenswood, LLC

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OAK BROOK IL
60523
US

A M CASTLE		110777239		4776		INCLUSION		Serial:20190708-0110777239		Pg 3of3	
CUSTOMER PURCHASE ORDER NO. & ITEM 503863						Constellium ORDER NO. 274033					
ALLOY 7075	CLAD	TEMPER T7351	GAUGE 2.00000 in 50.80 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm	CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Dave Dunbarger - Laboratory Manager					
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4078K											
PART NUMBER 752237			B/L NUMBER 120776		DATE SHIPPED 07/09/2019						
WT. SHIPPED 8535.000 LB			NO. OF PIECES 000006		GOVT. CONTRACT NO.						
Tensile - Room Temperature (SI)											
		Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report			
Direction	Tests	Min	Max	Min	Max	Min	Max				
LT	02	508	510	435	439	12.5	12.5				
Conductivity % IACS MIN 39.8 MAX 40.5 % MS/M MIN 23.1 MAX 23.5											
Chemistry (Actual)											
	SI	FE	CU	MN	MG	CR	ZN	TI	ZR		
Core	0.08	0.13	1.54	0.03	2.58	0.21	5.82	0.03	0.01		
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER											
All material contained in this lot was cast and manufactured in the USA											
QUALITY TEXTS: AMC CA-15413A R 11											
THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. CHEMISTRY BY OES: ARKSPARK CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399. WHEN SMOOTH FATIGUE TESTED, TESTED PER ASTM E466. WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8; B557 DUNS Number: 090570149; CAGE Code: 1YW19 100% Type I (Immersion sonic) used when ultrasonic inspection performed. Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product.											
P-860-155D REVISED: 01 2018											



MATERIAL RECEIPT INSPECTION FORM

MATERIAL: D6101-001
DATE: 2019-11-28

PO / BATCH NO.: S235959
POHBO45164
~~S235959~~

MATERIAL CERT REC'D: YES
QUANTITY RECEIVED: 40 PCS
QUANTITY INSPECTED: 40 PCS
QUANTITY REJECTED: 0

THICKNESS ORDERED: 2.000
THICKNESS RECEIVED: 2.000
SHEET SIZE ORDERED: 6.000 X 6.250
SHEET SIZE RECEIVED: 6.000 X 6.250

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y ☒ N	
CORRECT FINISH	☒ Y N	
CORROSION	Y ☒ N	
CORRECT GRAIN DIRECTION	☒ Y N	
CORRECT MATERIAL PER M-DRAWING	☒ Y N	ASTM B209
CORRECT THICKNESS	☒ Y N	
PHOTO REQUIRED	Y ☒ N	
CORRECT REF # TO LINK CERT	☒ Y N	HT 725088B9 & 9456036
CORRECT MATERIAL IDENTIFICATION	☒ Y N	
CORRECT M# ON THE MATERIAL	☒ Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y ☒ N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y ☒ N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>[Signature]</u>	SIGNED OFF BY: _____
DATE: <u>2019-11-28</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in